

NEW SOUTH AMERICAN ASCLEPIADACEAE

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Blepharodon minimus Woodson, sp. nov., herbacea erecta plus minusve diffusa ca. 2 dm. alta; caulibus filiformibus teretibus laxe foliatis glabris vel junioribus tenuissime puberulis; foliis patentibus patulisve oppositis brevissime petiolatis anguste linearibus 3–6 cm. longis 0.1–0.2 cm. latis utrinque glabris margine tenue ciliolatis in sicco revolutis petiolo glabro ca. 0.1 cm. longo; inflorescentiis axillaribus alternatis umbelliformibus 2–3-floris omnino glabris pedunculo ca. 0.1 cm. longo; pedicellis 0.2–0.3 cm. longis; calycis lobis ovatis acutiusculis ca. 0.1 cm. longis omnino glabris basi intus in marginibus tectis 2–3-glandulosis; corollae rotatae ostio 0.1–0.2 cm. diametro lobis ovatis acutis omnino glabris ca. 0.3 cm. longis; gynostegio sessili late conico ca. 0.1 cm. alto; coronae foliolis cuculattis late oblongo-ovatis gynostegio subaequantibus; antheris trapezoideo-oblongis appendice hyalina oblonga obtusa; polliniis oblique obovoideis; caudiculis pendentibus mediocribus; retinaculo anguste rhomboideo-oblongoideo polliniis paulo minore; folliculis ignotis.—“Colombia, Dept. Tolima: ‘El Convenio,’ west of San Lorenzo. Open hilltop, alt. 1000–1200 m., Dec. 29–30, 1917.” *F. W. Pennell 3487* (U. S. National Herbarium, TYPE, Mo. Bot. Garden Herbarium, photograph and analytical drawings).

Blepharodon minimus is most closely allied to *B. suberectus* Schltr., from which it differs in having much smaller, nearly sessile leaves with ciliolate margins, a much-reduced inflorescence with extremely short peduncle and pedicels, and an entirely glabrous calyx. The two species also differ in more technical details, such as the shape and size of the corona segments, which are oblong-acuminate and slightly surpass the gynostegium in *B. suberectus*, and are broadly ovate-oblong, obtuse, and somewhat shorter than the gynostegium in *B. minimus*. An additional detail of significance in the reproductive organs is found in the shape of the retinaculum, which is ovoid in the former species and narrowly rhomboid-oblongoid in the latter.

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Stephanotella Killipii Woodson, sp. nov., suffruticosa; ramis volubilibus teretibus junioribus tenuissime et sparse puberulis maturioribus glabratis; foliis oppositis petiolatis membranaceis ovato-ellipticis apice breviter et obtuse acuminatis basi obtusis 10–20 cm. longis 6–11 cm. latis supra glabris subtus tenuissime et sparse puberulis petiolo 1.5–2.0 cm. longo tenuissime puberulo in annulo obscuro stipularum instructo; cymis axillaribus alternatis 2–3-chotomis subumbelliformibus 10–20-floris pedunculo petiolos aequante vel paulo superante; bracteis scariaceis ovatis minimis; pedicellis ca. 0.5 cm. longis; calycis segmentis scariaceis oblongo-ovatis obtusiusculis 0.3 cm. longis tenuissime puberulis basi intus in marginibus uniglandulosis; corollae tubo cylindrico 0.5 cm. longo basi paulo dilatato lobis oblique ovato-oblongis 0.4–0.5 cm. longis margine tenue ciliolatis; gynostegio stipitati ca. 0.2 cm. alto obtuse rostrato; coronae foliolis connatis gynostegio adnatis et paulo brevioribus; antheris elongatis membrana hyalina obtusa terminatis; polliniis oblique obovoideis erectis; caudiculis mediocribus; retinaculo anguste ligulato polliniis paulo brevioribus; folliculis ignotis.—“Peru, Dept. Loreto: wooded banks of Rio Itaya, above Iquitos, alt. about 110 m., Sept. 17–22, 1929.” *E. P. Killip & A. C. Smith 29392* (U. S. National Herbarium, TYPE, Mo. Bot. Garden Herbarium, duplicate and analytical drawings).

The genus *Stephanotella* was established in 1885 by Fournier with a single species, *S. Glaziovii*, based upon a specimen collected by Glaziou in the neighborhood of Rio de Janeiro. Fortunately, the plant was well figured and described by Fournier, for it is evidently extremely rare, as no additional species have been ascribed to the genus until the present and no specimens of the original species are to be found in any of the larger American herbaria. It is noteworthy, therefore, that a second species of the genus should have been encountered by Messrs. Killip & Smith upon the Rio Itaya, a Peruvian tributary of the upper Amazon.

A comparison of the original description and illustration of *Stephanotella Glaziovii* (Fourn. in Martius, Fl. Bras. 6⁴: 326–327. t. 96. 1885) with the specimen collected by Killip & Smith reveals that the two are quite similar in general appearance, but

differ in both superficial and technical characteristics. The leaves of *S. Glaziovii* are described and figured as ovate-cordate, with a broad sinus, whereas those of *S. Killipii* are ovate-elliptic, with an obtuse base. Those of the former species, moreover, are described as "pilose." whereas those of the latter are always glabrous above, with a sparse and minute puberulous indument upon the lower surface of young individuals only. The leaves of the latter species, moreover, are evidently about twice the size of those of the former.

More technical differences between the two species are abundant and of almost generic importance. The interior calycine emergences or "squamellae" of *S. Killipii* are extremely small and occur separately in the axils of the calyx-lobes, but the calyx of *S. Glaziovii* is described emphatically as "*non solum in axillis sed inter sepala et corollam pluriglandulosis.*" The lobes of the corona in *S. Killipii* are completely connate and are somewhat surpassed by the rostrum of the gynostegium. The corona of *S. Glaziovii*, on the other hand, is deeply 5-cleft almost to the base, and the narrow appendices of the anthers conspicuously exceed the gynostegium. The retinaculum of either species, finally, is very distinct, that of *S. Glaziovii* being ovoid and very thick, whereas that of *S. Killipii* is merely an attenuate ligule.

Macroscepis equatorialis Woodson, sp. nov., suffruticosa; ramis volubilibus teretibus in sicco longitudinaliter striatis dense luteo-pilosis pilis dissimilibus tum brevibus simplicibus tum multo longioribus multicellularibus sicut ad petiolos pedunculos pedicellosque; foliis oppositis petiolatis membranaceis obovatis apice breviter et obtuse cuspidatis basi anguste cordatis 15–20 cm. longis 13–15 cm. latis supra sparse strigosis subtus farinulentis et longe pilosis petiolo 4–5 cm. longo in annulo obscuro stipularum instructo; inflorescentiis axillaribus alternatis umbelliformibus 6–8-floris pedunculo ca. 1 cm. longo; bracteis linearibus ca. 1.5 cm. longis viridibus dense pilosis; pedicellis ca. 0.5 cm. longis; calycis lobis scariaceis late ovatis acutis 1 cm. longis 0.75 cm. latis brevissime puberulis apice longe pilosis basi intus in marginibus uniglandulosis; corollae tubo cylindrico-campanulato 0.75 cm. longo fauce constricto et parce appendiculato ca. 0.5 cm.

diametro lobis ovatis acutiusculis 0.75 cm. longis 0.5 cm. latis extus intusque brevissime puberulis; gynostegio subsessili; coronae foliolis corollae tubo fere ad faucem et tubo stamineo adnatis omnino inclusis apice introrsum replicatis; polliniis oblongo-obovoideis pendulis; caudiculis brevioribus apice dilatatis; retinaculo oblongo leviter compresso apice rotundato basi acutiusculo polliniis multo brevioribus; stigmate 5-lobo in medio excavato; folliculis solitariis ovoideis basi rotundatis apice acuminatis usque ad 9 cm. longis ad 3.5 cm. crassis late 5-alatis alis ca. 0.5 cm. latis laevibus glabris.—“Ecuador, Prov. Guayas: Oil Camp between Guayaquil and Salinas, alt. 0–100 m., June 21–24, 1923.” *A. S. Hitchcock 20109* (U. S. National Herbarium, TYPE, Mo. Bot. Garden Herbarium, photograph and analytical drawings).

M. equatorialis is probably most closely related to *M. barbata* S. F. Blake, from which it differs in having somewhat larger leaves of a different shape and indument, a calyx which is definitely glandular within, and a shorter corolla-tube with lobes which are not emarginate as in the latter species. In addition, the coloration of the flowers is very probably different, that of *M. equatorialis* being described as “brown” and that of *M. barbata* as “greenish . . . the lobes dark green with a narrow pale margin” by the respective collectors of the type specimens of either species.

Phaeostemma tigrina Woodson, sp. nov., suffruticosa; ramis volubilibus teretibus dense luteo-hirtellis sicut ad petiolos pedunculos et pedicellos; foliis oppositis petiolatis membranaceis ovato-cordatis apice breviter et acute acuminatis basi late auriculatis 10–12 cm. longis 7–8 cm. latis supra densissime bullato-strigillosis subtus luteo-hirtellis petiolo 3.0–3.5 cm. longo in annulo obscuro stipularum instructo; inflorescentiis axillaribus alternatis corymboso-umbelliformibus 8–10-floris pedunculo 9–10 cm. longo; bracteis scariaceis minimis; calycis lobis linearibus obtusiusculis ca. 0.5 cm. longis ca. 0.1 cm. latis luteo-hirtellis basi intus in marginibus uniglandulosis glandulis linearibus minute pilosis; corollae rotatae pulchre flavo-fulvo-reticulatae tubo breviter cylindrico-campanulato 0.3–0.4 cm. longo glabro fauce ca. 0.5 cm. diametro lobis ovatis acutis 0.7–0.8 cm. longis

0.4–0.5 cm. latis extus minute puberulo-papillatis intus glabriusculis; gynostegio subsessili; coronae foliolis tubo corollae fere aequantibus interioribus connatis gynostegio et tubo stamineo adnatis exterioribus obtuse bilobatis inferius in medio carinatis; polliniis anguste oblongo-obovoideis pendulis; caudiculis horizontalibus auriculatis; retinaculo sagittato leviter compresso apice acutiusculo basi subhastato; stigmatate depresso 5-lobo ca. 0.4 cm. diametro; folliculis ignotis.—“Colombia, Dept. El Cauca: ‘Caligualala,’ Coconuco, cliff near Rio San Andreas, alt. 2700–3000 m., June 14–18, 1922.” *F. W. Pennell 7151* (U. S. National Herbarium, TYPE, Mo. Bot. Garden Herbarium, photograph and analytical drawings).

Ph. grandifolia Rusby, the only species of *Phaeostemma* previously reported from Colombia, should probably be regarded as the nearest ally of the foregoing. From *Ph. grandifolia*, *Ph. tigrina* differs in having much smaller leaves with a different indument and with much shorter petioles, shorter and much narrower calyx-lobes, and a smaller corolla of somewhat different construction. In addition, technical differences in the reproductive organs exist. The coloration of the corolla of *Ph. grandifolia* is reported as “purple-veined and finely white-spotted, corona purple” (Rusby), and that of *Ph. tigrina* as “cossack-green, veiny on cream petals, cream center” (Pennell). The “cream center” cited by Dr. Pennell is evidently equivalent to the “corona” of Dr. Rusby’s plant, and both probably refer to the plane, pentagonal stigma.

Exolobus marmoreus Woodson, sp. nov., suffruticosa alte scandens; ramis ramulisque volubilibus in sicco longitudinaliter striatis laxe foliatis dense luteo-hirtellis sicut ad petiolos pedunculos et pedicellos; foliis oppositis petiolatis membranaceis ovato-oblongis apice acute acuminatis basi late cordatis 5–9 cm. longis 3.5–6.0 cm. latis supra dense strigillosis subtus molliter luteo-puberulis petiolo 2.0–2.5 cm. longo in annulo obscuro stipularum instructo; cymis corymbiformibus axillaribus alternatisque 10–15-floris pedunculo 2–3 cm. longo; pedicellis 2.0–2.5 cm. longis; calycis segmentis lanceolatis acutiusculis ca. 0.7 cm. longis 0.1–0.2 cm. latis extus laxe pilosulis intus glabris

basi in marginibus uniglandulosis; corollae rotatae lobis ovato-lanceolatis acutiusculis usque ad 1 cm. longis 0.3–0.4 cm. latis pulchre virido-marmoreis extus glabris intus papillatis basi leviter puberulis; coronae exterioris annularis depressae leviter 5-lobatae lobis minutissime puberulis; coronae interioris foliolis oblongo-spathulatis gynostegio et tubo stamineo adnatis; antherarum angulis superioribus anguste reniformibus divergentibus; polliniis oblique pyriformibus pendulis; caudiculis horizontalibus auriculatis perbrevis; retinaculo minuto-rhomboideo polliniis fere 6-plo brevioribus; folliculis ignotis.—“Colombia, Dept. Norte de Santander: between Pamplonita and Chinacota, Rio Pamplonita Valley, alt. 1300–1800 m., March 17, 1927, *E. P. Killip & A. C. Smith 20748* (U. S. National Herbarium, TYPE, Mo. Bot. Garden Herbarium, photograph and analytical drawings).

From *E. patens* (Dcne.) Fourn., which is evidently the most widespread species of *Exolobus* in South America, *E. marmoreus* differs superficially by reason of its broader leaves with shorter petioles, its more floribund inflorescence, and its smaller corolla with proportionally longer calyx-lobes. Several technical differences occur in the reproductive organs, the most conspicuous of which is the shape of the anther appendages, which are obovate in *E. patens* and narrowly reniform in *E. marmoreus*. The specific name refers to the dark greenish reticulation of the cream-colored corolla-lobes.

Marsdenia lauretiana Woodson, sp. nov., suffruticosa volubilis omnino glabra; ramis teretibus sat crassis longitudinaliter striatis; foliis oppositis petiolatis subcoriaceis elliptico-obovatis apice breviter et acute acuminatis basi attenuatis acutisque 7–10 cm. longis 2.0–4.5 cm. latis petiolo ca. 1 cm. longo in annulo obscuro glandulo-appendiculato instructo; cymis lateralibus alternatis umbelliformibus 6–10-floris pedunculo ca. 0.5 cm. longo; bracteis scariaceis vix apertis; pedicellis pedunculos aequantibus vel paulo superantibus; calycis laciniis late ovato-deltaideis obtusissimis ca. 0.3 cm. longis 0.3–0.4 cm. latis extus glabris vel obscurissime papillatis intus glabris in marginibus 3–4-glandulosis margine ciliolatis; corollae carnosae plus minusve maculatae tubo breviter cylindrico fauce constricto ca. 0.4 cm. longo

basi ca. 0.3 cm. diametro extus minute et sparse papillato intus in parte infra alas antherarum sita hirtello lobis patentibus late obovatis apice rotundatis ca. 0.3 cm. longis margine ciliolatis; gynostegio breviter stipitato; filamentis staminalibus brevibus alis tenuibus membranibus antherarum apice obtusis; coronae foliolis dorso staminibus adnatis basi volvatis supra acumine lato ornatis antherarum membranibus dimidia brevioribus; polliniis obovoideis erectis; caudiculis vix brevioribus primum descendentes dein horizontalibus; retinaculo late elliptico superiore parte subacuminato polliniis multo brevioribus; stigmatibus rostro conoideo muriculato apice obtuso antherarum membranas paulo superante; folliculis ignotis.—“Peru, Dept. Loreto: Mishuyacu, near Iquitos, alt. 100 m., forest, Oct.–Nov., 1929.” *G. Klug 477* (U. S. National Herbarium, TYPE, Mo. Bot. Garden Herbarium, photograph and analytical drawings).

When referred to the identificatory keys of Rothe's¹ revision of the genus *Marsdenia*, *M. lauretiana* is readily included within the section *Ruehssia* subsection *Mollissimae*. The species is evidently most closely related to *M. mollissima* Fourn., but strongly contrasts with it because of the complete glabry of the vegetative parts. The leaves of *M. lauretiana*, furthermore, are elliptic-obovate and subcoriaceous, whereas those of *M. mollissima* are ovate-cordate and membranaceous. Although sufficiently similar to include them within the same subsection, the reproductive organs also differ markedly.

¹ Rothe, in Engl. Bot. Jahrb. 52: 354–434. 1915.